



DO NOT PERFORM THIS ASSEMBLY ALONE. MAKE SURE YOU HAVE SEVERAL PEOPLE TO HELP. READ INSTRUCTIONS THOROUGHLY.

ASSEMBLY PROCEDURES

- I. UNPACK
- II. Y-AXIS SETUP
- III. MOUNT GANTRY, CABLE CARRIERS, TOOL CHANGER ACCESSORIES (if necessary) & CABLES

I. UNPACK

The disassembled machine ships in three* main pieces:

1. the Table Base, 2. the Gantry and 3. the Lower Beam

These three pieces can be shipped in one of two ways (PICTURES 1 & 1A):

1. Table on a pallet with the removed Gantry/Lower Beam or
2. Table crated on its side with removed Gantry/Lower Beam.

***If a Tool Changer Spindle was ordered than the fourth piece shipped will be the Tool Changer Arm and Mounting Brackets.**

NOTE¹: If the machine was shipped on its side remove the Gantry and Lower Beam from the pallet and use a forklift to flip the Table so it is standing on its legs. Place the Gantry and Lower Beam on the tabletop until needed.

STEP 1: Remove all shrink wrap and cut all metal tie wraps from around the machine.

WARNING: Be very careful not to allow the Y-Axis Bearing Blocks to slide off the rails! (PICTURE 2)

STEP 2: Remove the plastic bags, containing two metal spacers each, from the Bearing Blocks. Keep in a safe place until needed. (PICTURE 2)

NOTE³: The front of the machine is referenced throughout these instructions. To locate the front of the machine, locate the control box attached to a machine leg (PICTURE 3). The control box is located at the front of the machine.

PICTURE 1



PICTURE 1A



PICTURE 2



PICTURE 3



II. Y-AXIS SETUP

The long axis (running from the front to the back) located under the machine table is the Y-axis. These steps detail attaching the Lower Beam.

WARNING: Be very careful not to allow the Y-Axis Bearing Blocks to slide off the rails! Damage to the bearings will occur.

NOTE¹: There will be additional metal tie wraps that hold the ball screw (underneath the machine, **PICTURE 4**) in place. Cut these before proceeding.

STEP 1: Unwrap the Y-Axis Ball Nut Assembly and remove the Lower Beam from the tabletop.

STEP 2: Mount the Lower Beam to the Y-axis Bearing Blocks using the pencil marks as your guides for the left to right positioning. Hand tighten the Bearing Block screws.

NOTE²: Each Bearing Block will have five screws that attach to the Lower Beam vertically and two clamp screws that attach to the Lower Beam horizontally. Only hand tighten the five vertical screws.

STEP 3: Move the Lower Beam Assembly to the rear of the machine until it comes in contact with the left and right **solid stop pins** (**PICTURES 5 & 6**).

STEP 4: Rotate the Ball Nut Assembly to the Lower Beam, align and hand tighten the four mounting screws. (**PICTURE 7**)

STEP 5: Holding pressure against the solid stop pins, tighten the five vertical screws securing the Lower Beam assembly to the Bearing Blocks.

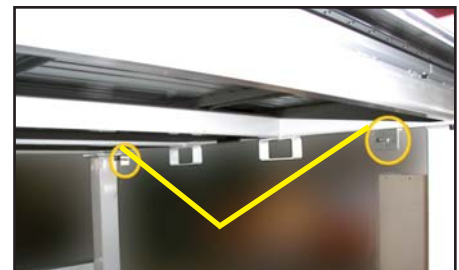
STEP 6: Secure the Ball Nut Assembly to the Lower Beam. (**PICTURE 8**) Connect the servomotor power cables to the Lower Beam.

STEP 7: Adjust the Y-Axis Limit Switch if needed, so that it is activated approximately 1/2" before the Lower Beam would contact the solid stop pins in the front and rear of the machine.

PICTURE 4



PICTURE 5



PICTURE 6



PICTURE 7



PICTURE 8



III. MOUNT GANTRY, CABLE CARRIERS & CABLES

The Gantry consists of the X- and Z-axes with the X-axis attached to two Angle Brackets. The Angle Brackets get mounted on top of the Lower Beam with the spindle facing the machine front.

STEP 1: Mount the Gantry to the Lower Beam, using the pencil marks as a guide for your left to right location. Tighten all screws securely.

NOTE¹: The screws are different lengths; the eight screws toward the front of the machine are longer than the eight screws toward the rear. (PICTURE 9)

STEP 2: Unwrap the cable carriers and mount them to the Lower Beam, X-axis Slide, and Z-axis Slide. (PICTURES 10 & 11)

STEP 3: Attach all servo cables and wires. Use wire ties to secure in place. Connect and secure the Limit Switch wire on the X,Y, and Z-axes and attach the X,Y, and Z servo ground wires (if applicable).

STEP 4: (Proceed to **STEP 5** if Microdrop Coolant System was not ordered) Connect the 3/8" airline to the Microdrop Coolant Unit. Make sure there are no kinks anywhere in the line. Secure with wire ties. (PICTURE 12)

STEP 5: (Proceed to **STEP 6** if Tool Changer with Tool Stands was not ordered) Feed the Tool Changer Arm through the opening of the left upright. Make sure the tool stands are facing up and toward the front of the machine. (PICTURE 13, next page)

Secure the two black mounting brackets under the table top extrusion at the front and rear using the screws that are still connected to the top extrusion. (PICTURE 14, next page)

NOTE²: When the Tool Changer Arm is secured to the table correctly it should not come in contact with the upright at any time.

The Tool Stand locations must be retight before attempting to change tools. Refer to section III. **Tool Stand Locations Tutorial of 0325_Techno CNC Servo GCODE Interface Manual** for instructions to do so.

PICTURE 9



PICTURE 10



PICTURE 11

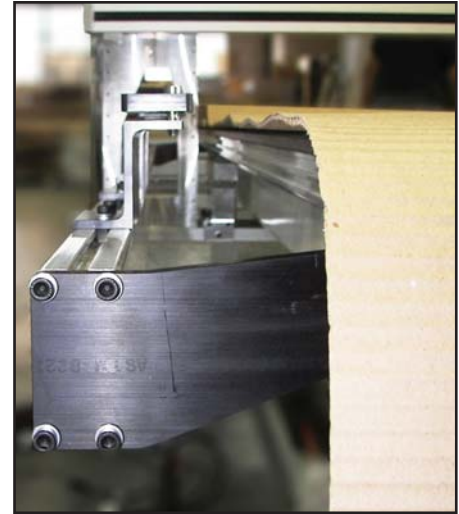


PICTURE 12



STEP 6: Plug spindle power cord into top of spindle. The plug size and shape may vary according to the type of spindle ordered.

PICTURE 13



STEP 7: Attach E-Stop Start/Stop Box under the table top extrusion at the front of the machine (if applicable). The two screws needed are in position under the table top extrusion where the box will be attached.

NOTE³: You are now ready to Power Up.

STEP 8: Home all axes and make sure they move smoothly.

NOTE⁴: If all went well, the machine should be close to being square. If not follow the Re-Indication Directions enclosed with these reassembly instructions.

After the machine is indicated you must lock the Lower Beam to the Bearing Blocks.

PICTURE 14



STEP 9: Open the two plastic bags you removed from the Bearing Blocks earlier in the setup. There will be a total of four metal spacers, each Bearing Block will need two.

PICTURE 15

STEP 10: Insert the metal spacers between the Lower Beam and the two horizontal clamp screws on each Bearing Block, tighten both the left and right side clamp screws evenly, locking the Bearings Blocks to the Lower Beam. (PICTURES 15)

